Public Notice

US Army Corps of Engineers®

Public Notice No. PM-P-03-03 Date: August 26, 2003

Nashville District

Comments To:

Nashville District Corps of Engineers
Planning Branch (PM-P)
P.O. Box 1070
Nashville, TN 37202-1070
ATTN: Mr. Wayne Easterling
Phone: 615-736-7847

Tennessee Valley Authority
NEPA Administration
400 W. Summit Hill Drive
Knoxville, TN 37902-1499
ATTN: Mr. Harold Draper
Phone: 865-632-6889

Tennessee Division of Water Pollution Control
Natural Resources Section
401 Church Street; 7TH Floor L & C Annex
Nashville, TN 37134-0343
ATTN: Mr. Dan Eager
Phone: 615-532-0708

JOINT PUBLIC NOTICE

US ARMY CORPS OF ENGINEERS
TENNESSEE VALLEY AUTHORITY
AND
STATE OF TENNESSEE

APPLICANT: US Army Corps of Engineers, Nashville District

SUBJECT: Proposed Discharge of Dredged and/or Fill Material in Association with Proposed Channel Maintenance to the Tennessee River between Tennessee River Mile (TRM) 642.5 (35° 55' 31" N; 83 °, 57', 28" W) and TRM 643.5 (35 °, 55', 53" N; 83°, 57, 10" W) in Fort Loudoun Lake (Knoxville Quadrangle).

TO ALL CONCERNED: In compliance with Section 404 of the Clean Water Act (CWA) PL 92-500, notice is hereby given that the Nashville District Corps of Engineers proposes to discharge dredged and/or fill material in connection with channel maintenance for the Tennessee River in Fort Loudoun Lake in Knoxville, Tennessee. Before the discharge can be undertaken, certification must be obtained from the State of Tennessee pursuant to Section 401(a)(1) of the CWA, that applicable water quality standards will not be violated. By copy of this notice, the Corps of Engineers, hereby applies for the required certification.

WATERSHED and LOCATION: The proposed project is in the Upper Tennessee River Watershed, HUC TN06010201. TRM 642.5 (35 ° 55' 31" N; 83 °, 57', 28" W) to TRM 643.5 (35 °, 55', 53" N; 83 °, 57, 10" W) (approximately one mile), Knoxville, Knox County, Tennessee (USGS Knoxville, Tennessee 7.5 Minute Series Quadrangle).

AUTHORITY and BACKGROUND: The Rivers and Harbors Act of July 3, 1930, ch. 847, 46 Stat. L. 927 (1930) authorized the permanent improvement of the Tennessee River to a navigable depth of nine feet at low water from the mouth to Knoxville, Tennessee. The Tennessee Valley Authority Act of 1933 (16 U.S.C. §§ 831-831ee) authorized TVA to provide a nine-foot channel

in the Tennessee River from Knoxville to its mouth. Since passage of the Tennessee Valley Authority Act of 1933, the Corps of Engineers, in cooperation with TVA, has maintained navigation channels on TVA projects by performing necessary maintenance dredging operations. This division of responsibility is outlined in a Memorandum of Agreement between the Corps and TVA dated October 26, 1962. TVA is a cooperating agency for this NEPA process.

According to the Rules of Tennessee Department of Environment and Conservation, Division of Water Pollution Control Amendments, Chapter 1200-4-4, Use Classifications for Surface Water, October 1999, this section of the Tennessee River's designated uses are domestic water supply, industrial water supply, fish and aquatic life, recreation, irrigation, livestock watering and wildlife, and navigation. This river segment is listed in the State's Proposed Final Version Year 2002 303(d) list for PCBs in contaminated sediment. A fishing advisory for PCBs has been posted for this river segment (2002 305(b) Report).

TVA built Fort Loudoun Lock and Dam, located at Tennessee River Mile (TRM) 602.3. The lock was opened to navigation in 1943. Fort Loudoun is the uppermost main stem reservoir on the Tennessee River and provides a navigable waterway to the Knoxville area. The Holston River and French Broad River, which meet to form the Tennessee River just upstream of Knoxville, are the primary inflows to Fort Loudoun Reservoir. The proposed dredging site is located 5 miles downstream of downtown Knoxville, Tennessee, or about 41 miles above the dam.

The Tennessee River's Looney Island is subjected to constant bed load movement resulting in recurring shoaling problems in the navigation channel and forming a hazard to watercraft. A Final Environmental Impact Statement (FEIS) covering open channel maintenance for the Tennessee River and tributaries was filed with the President's Council on Environmental Quality on March 7, 1976. The FEIS can be referred to for information on overall impacts of maintenance dredging activities on the Tennessee River. The area has been dredged repeatedly, beginning in 1979 and again in 1987, 1991, and 1995. The area was last dredged in 1998.

PURPOSE and DESCRIPTION: The project proposes dredging and open water disposal of the dredged material between TRM 642.5 and 643.5. Removal of the material is necessary to restore adequate navigational depths to this reach of the river. Dredging would be to Elevation 796.0 feet msl, which is 11 feet below Fort Loudoun Lake's normal minimum pool of 807.0, and provides the required 9 feet of navigation depth plus 2 feet of overdepth for safety and to allow for a few years of accumulation before dredging is needed again.

The purpose of this maintenance dredging work is to maintain a safe and open channel. This action would dredge up to approximately 60,000 cubic yards of sand and silt from the Tennessee River (Fort Loudoun Reservoir) navigation channel adjacent to Looney Island (see Figures 1 and 2). A clamshell type dredge would accomplish dredging, with spoil materials being transported by dump scow to the disposal area. Dredging and disposal activities were last carried out in 1998. The navigation channel would be dredged to Elevation 796.0 feet msl, which is 11 feet below the Fort Loudoun normal minimum pool of 807.0 feet msl.

CURRENT SITE CONDITIONS: The current conditions of the project site are described in detail in the Section 404(b)(1) Evaluation. Briefly, the waters have been converted by the impoundment of the reservoir from a riverine to a lake environment. Flows are regulated. The

substrate is predominantly sand and silt with some small gravel interspersed with plant detritus. The sediment has been sampled for contaminants including metals and a variety of hazardous and toxic chemicals including PCBs. No contaminants were found in detectable levels. Furthermore, due to the type of sediment (sand) found in the Looney Island dredge site, in-river disposal is not considered to be as harmful.

ALTERNATIVES: Other Alternatives studied included No Action, upland disposal, navigation channel relocation, changing reservoir operations to raise minimum pool level, open water disposal at a remote site, and privatization of channel maintenance.

A No Action decision would not allow the continued maintenance dredging of the Tennessee River. At some point, as the area continues to fill and the shoals become shallower, navigation above this point in the river would be suspended. There are currently four active barge terminals located upstream from the dredging site. Two terminals supply asphalt for paving road projects in east Tennessee and the other two terminals handle various commodities such as steel, zinc, roadway salt, sand, gravel, and coke. About 500,000 tons of commerce move on the river to and from Knoxville annually. The "No Action" alternative would also have a negative impact on the floodway because the sediment buildup is presently reducing the clear cross-sectional area of the river at the site.

Upland disposal would involve construction of a confined disposal facility (CDF) for containment of dredged material on property in the vicinity of the site. The CDF is essentially a settling pond, made with earth dikes, that allows the dredged material to dry over a period of time. Excess water either flows from the pond or evaporates. Dredged material would be placed in the CDF with a suction dredge. The costs of purchasing or leasing property, construction of dikes, and suction dredging operations would require a sizeable capital investment and are well beyond the scope of the proposed maintenance activity. This alternative is, therefore, considered impractical at this time.

Navigation channel relocation would involve relocation of the navigation channel to the back side of the island. Initial dredging would be extensive and would require transport of the dredged material to a more remote site or construction of a CDF. This alternative would cost over $2,000,000. In addition, extensive model testing would be necessary to verify that a relocated channel would be acceptable. This testing would cost approximately $200,000. The added costs would be well beyond the scope of the proposed maintenance activity. As a result, this is not a practicable alternative.

Changing reservoir operations to raise minimum pool level would eliminate the immediate need for maintenance dredging by raising the minimum pool by 2 feet. It would, however, greatly impact TVA's ability to control the flood level at Knoxville. In addition, this would only grant a few years reprieve before the area once again required attention. As a result, this is not a practicable alternative.

Open water disposal at a remote site would involve clamshell dredging and transport of the material with bottom dump barges to a remote site several miles downstream. At Looney Island, this would cost about $400,000. The added costs would be well beyond the scope of the proposed maintenance activity. As a result, this is not a practicable.

Under privatization of channel maintenance, commercial towing companies, the States, or TVA could employ private dredging companies to perform channel maintenance work on the Tennessee River. But, neither the states nor TVA can afford to pursue this alternative. The Nashville District, Corps of Engineers, is responsible for performing maintenance dredging in accordance with the 1962 Memorandum of Agreement between TVA and the Corps of Engineers. The Corps has access to the appropriate equipment, personnel, and historical records of previous maintenance activities. Therefore use of another dredging operation is considered impracticable.

OTHER CONSIDERATIONS: In addition to consideration of other factors of the public interest, the review process will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency (EPA), under authority of Section 404(b)(1) of the Clean Water Act (40 CFR Part 230). A copy of the District Engineer's preliminary 404(b)(1) evaluation is included with the EA and available for review at the location listed above.

Section 106 of the National Historic Preservation Act requires Federal agencies having direct or indirect jurisdiction over a proposed Federal or Federally assisted undertaking to take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. The State Historic Preservation Officer (SHPO) of Tennessee has been consulted with regards to this undertaking. It offered the opinion that there are no National Register of Historic Places listed or eligible properties affected by the undertaking, and has no objections to proceeding with the project.

As identified under the Endangered Species Act, five species of Federally listed Threatened or Endangered Species are known to reside in the area. These include the yellowfin madtom (Noturus flavipinnis), the orange-foot pimpleback (Plethobasus cooperianus), the dromedary pearlymussel (Dromus dromus), the peregrine falcon (Falco perigrinus), and the hellbender (Cryptobranchus alleganiensis). A survey of the area and sampling of the sediment indicate that none of the listed species are likely to be present in either the dredge or the disposal sites.

Federal, state and local approvals required for the proposed work include the following:

a. Water quality certification from the State of Tennessee and in accordance with Section 401(a)(1) of the Clean Water Act;

PUBLIC PARTICIPATION: An Environmental Assessment (EA), unsigned Finding of No Significant Impact (FONSI), and Preliminary 404(b)(1) Evaluation have been prepared and are being circulated to appropriate agencies, organizations, and the public for review and comment. The EA evaluates the existing environmental conditions and effects of proposed impacts to the region. Also, the EA incorporates environmental commitments and measures to minimize or reduce environmental impacts to riparian and aquatic habitat to the extent feasible including the use of best management practices (BMPs). Responses received during the comment period will be addressed and incorporated into the EA. Copies of the EA package may be obtained by writing or calling the Corps contact indicated below. This notice also serves as Notice of Availability of the EA for review.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings should be sent to the Corps or TDEC, Water Pollution Control, Natural Resources Section. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

Written statements received in this office on or before October 3, 2003, will become a part of the record and will be considered in the determination. Any response to this notice should be directed to the U.S. Army Corps of Engineers, Project Planning Branch, Attention: Wayne Easterling, PO Box 1070, Nashville, TN, 37202-1070, or by calling (615) 736-7847. Comments can also be directed to the Tennessee Department of Environment and Conservation, Division of Water Pollution Control, Natural Resources Section, Attention: Dan Eager, 401 Church Street, 7th Floor L&C Annex, Nashville, TN 37134-0343, or by calling (615) 532-0708.

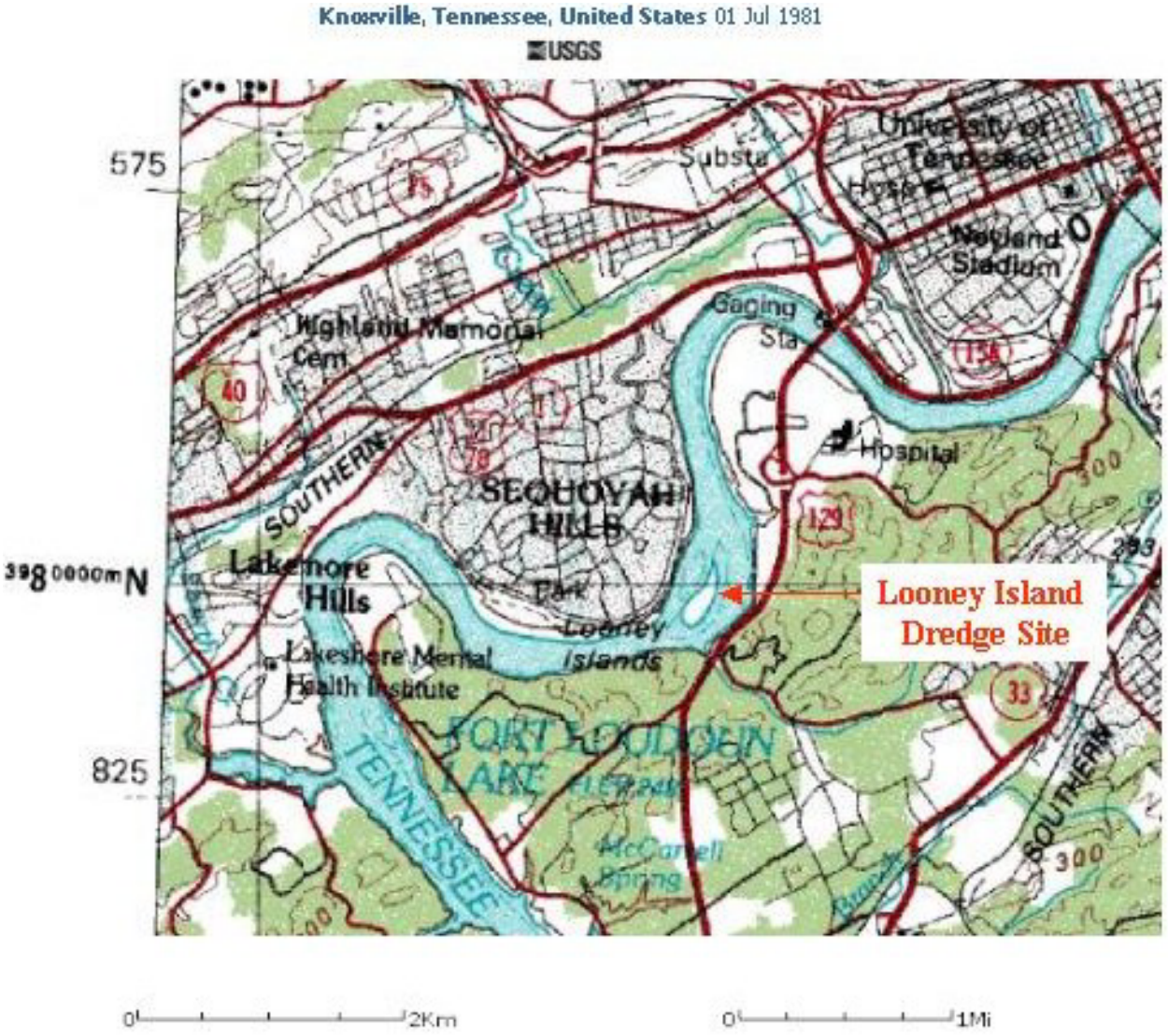

Figure 1

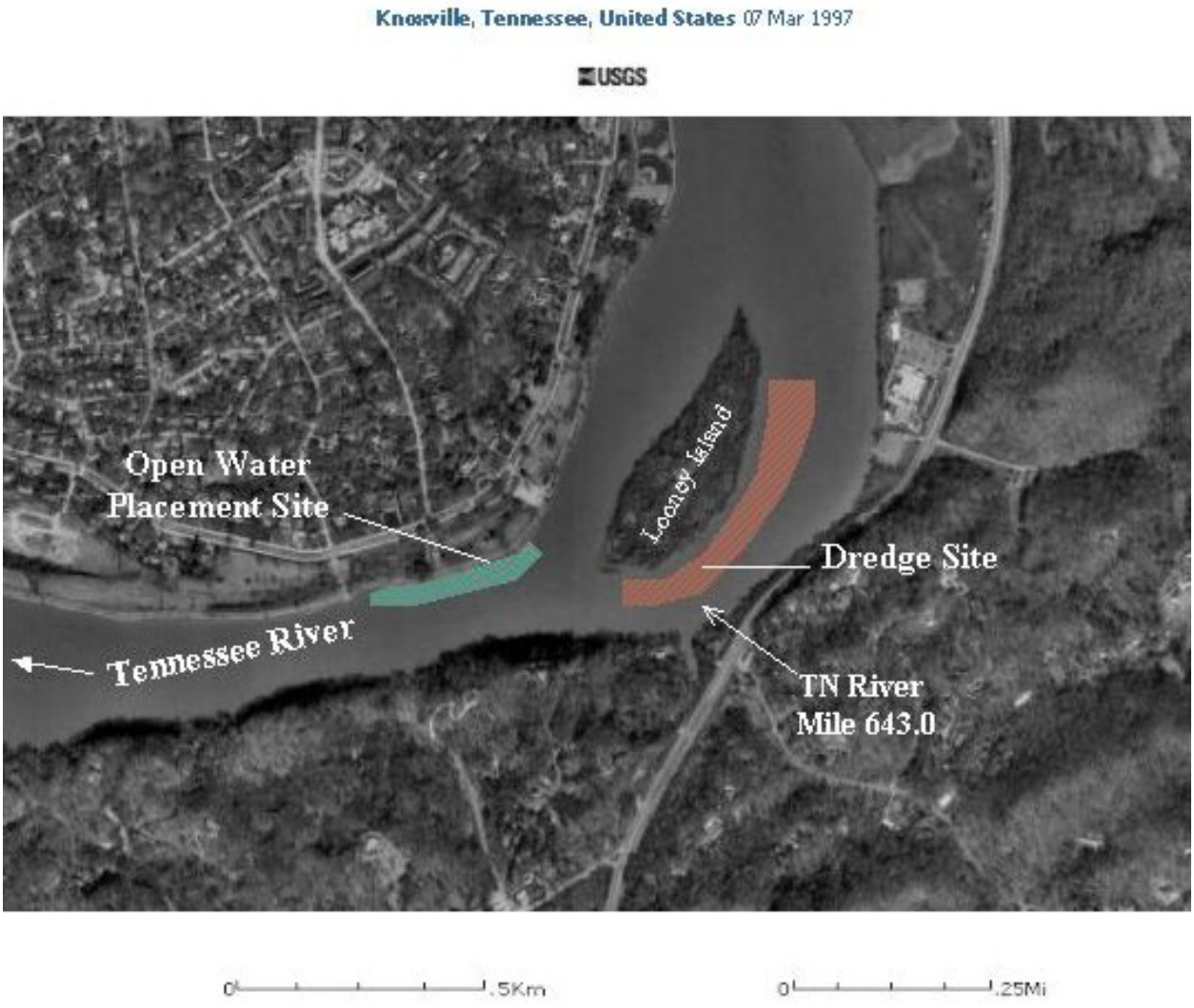
Knoxville, Tennessee, United States 07 Mar 1997
USGS
Open Water
Placement Site
Loony Island
Dredge Site
Tennessee River
TN River
Mile 643.0
0
.5Km
0
.25Mi

Figure 2